Frequency Table

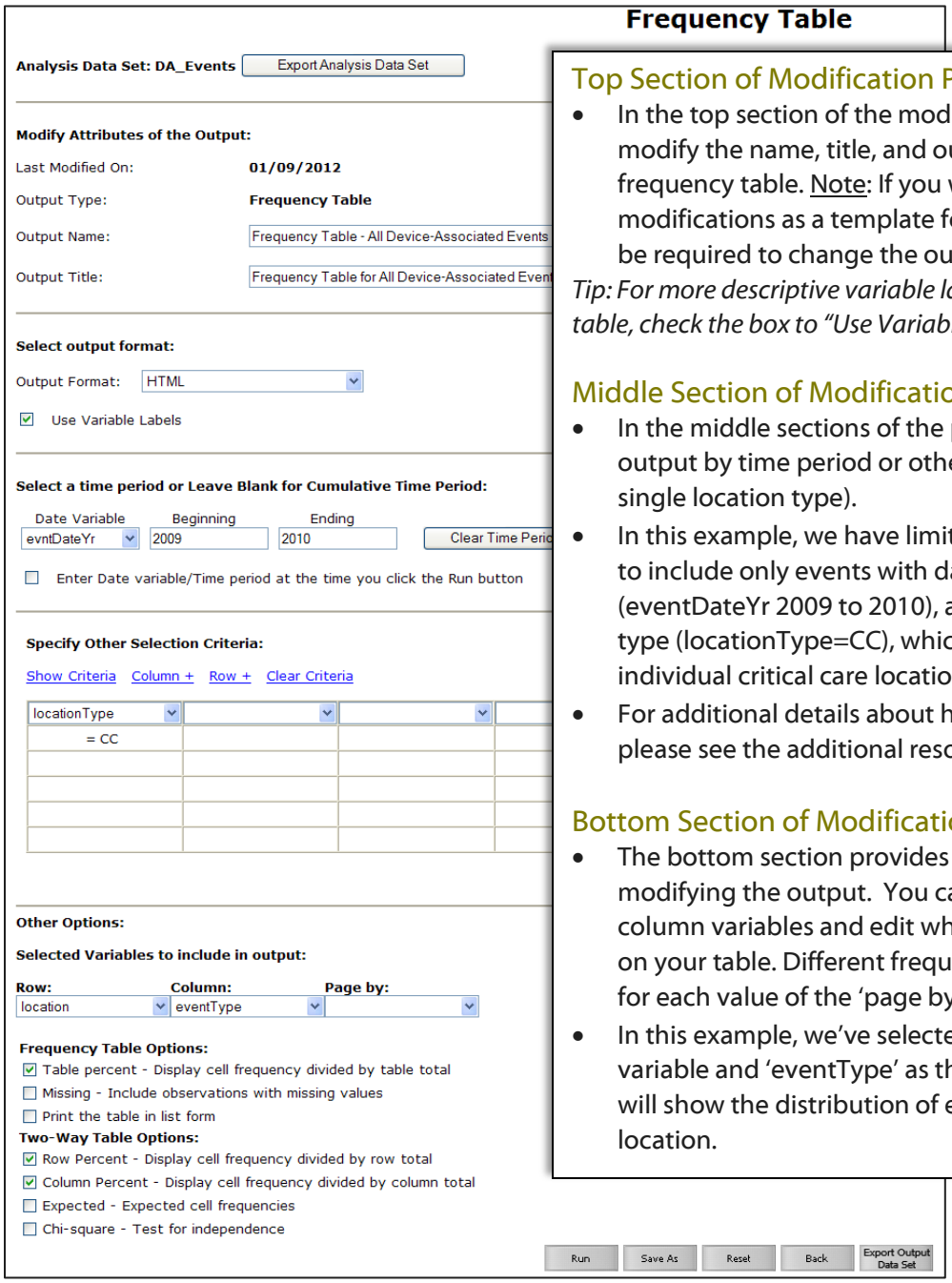
Description

A frequency table is an organized display of counts and percentages. The data are organized by a row variable and a column variable, and the frequency table provides a count of the number of observations in the data set that meet the specifications of both the row and column variables.

Example

Suppose you are interested in looking at the distribution of each device-associated (DA) event across the different critical care locations in your facility, for all events that were identified in 2009 and 2010.

Modification Page



Top Section of Modification Page:

- In the top section of the modification page, you can modify the name, title, and output format of the frequency table. Note: If you wish to save your modifications as a template for future reports, you will be required to change the output name.

Tip: For more descriptive variable labels on your frequency table, check the box to "Use Variable Labels" (recommended).

Middle Section of Modification Page:

- In the middle sections of the page, you can filter output by time period or other criteria (e.g., limit to a single location type).
- In this example, we have limited the frequency table to include only events with dates in 2009-2010 (eventDateYr 2009 to 2010), and from a single location type (locationType=CC), which will include each individual critical care location.
- For additional details about how to use this section, please see the additional resources listed on page 2.

Bottom Section of Modification Page:

- The bottom section provides other options for modifying the output. You can designate the row and column variables and edit which statistics are shown on your table. Different frequency tables will be made for each value of the 'page by' variable.
- In this example, we've selected 'location' as the row variable and 'eventType' as the column variable. This will show the distribution of each DA event for each location.

Output/Results and Interpretation

This example frequency table is the result of the modifications shown on page 1. For each row/column combination, there are four cells of data. Let's look at the 71ICU location/BSI event type combination (boxed in red):

- NOTE: In the top left corner of the table, there is a "legend" explaining what each cell in the frequency table represents (boxed in green).
- The top cell of each combination provides a simple count of the number of events (frequency) that have occurred meeting both the row and column criteria. In this example, there were 8 bloodstream infections (BSI) in the 71ICU between 2009 and 2010.
- The second cell for the 71 ICU is the percent of all events in the dataset that meet both the row and column variables (percent of table total). For example, 21.62% of all device-associated events in 2009 and 2010 were BSIs in the 71ICU (8/37).
- The third cell is the percent of events of a given type per total of a given row (row percent). In this example, 53.33% of all device-associated (DA) events in the 71ICU were bloodstream infections (BSI) (8/15).
- The fourth cell is the percent of events of a given type across all columns (Column Percent), and in this case shows the percent of each DA event type that occurred in a certain location. For example, 32% of all BSI events occurred in the 71ICU (8/25).
- The margins of the column and row variables (boxed in blue) contain the total counts (top cells) and total percentages (bottom cells) of data for each location (or strata). For example, in 71ICU, there were 15 DA events accounting for 40.54% (15/37) of all DA events reported from these locations during 2009-2010. Similarly, there were 25 BSIs accounting for 67.57% (25/37) of all DA events reported from these locations during 2009-2010.

National Healthcare Safety Network
Frequency Table for All Device-Associated Events
As of: January 9, 2012 at 4:38 PM
Date Range: DA_EVENTS evntDateYr 2009 to 2010

Frequency
Percent
Row Pct
Col Pct

Table of location by eventType

location(Location)	eventType(Event Type) BSI	PNEU	UTI	Total
22ICU	1	0	0	1
	2.70	0.00	0.00	2.70
	100.00	0.00	0.00	
	4.00	0.00	0.00	
3- WEST	1	0	0	1
	2.70	0.00	0.00	2.70
	100.00	0.00	0.00	
	4.00	0.00	0.00	
5G	1	0	0	1
	2.70	0.00	0.00	2.70
	100.00	0.00	0.00	
	4.00	0.00	0.00	
61EAST	0	1	0	1
	0.00	2.70	0.00	2.70
	0.00	100.00	0.00	
	0.00	25.00	0.00	
71ICU	8	2	5	15
	21.62	5.41	13.51	40.54
	53.33	13.33	33.33	
	32.00	50.00	62.50	
F.SICU	0	0	1	1
	0.00	0.00	2.70	2.70
	0.00	0.00	100.00	
	0.00	0.00	12.50	
ICU	4	0	1	5
	10.81	0.00	2.70	13.51
	80.00	0.00	20.00	
	16.00	0.00	12.50	
INMEDCC	2	0	0	2
	5.41	0.00	0.00	5.41
	100.00	0.00	0.00	
	8.00	0.00	0.00	
MICU	1	0	0	1
	2.70	0.00	0.00	2.70
	100.00	0.00	0.00	
	4.00	0.00	0.00	
S-ICU	7	1	1	9
	18.92	2.70	2.70	24.32
	77.78	11.11	11.11	
	28.00	25.00	12.50	
Total	25	4	8	37
	67.57	10.81	21.62	100.00

Additional Resources:
Introduction to NHSN Analysis: http://www.cdc.gov/nhsn/PDFs/training/intro-AnalysisBasics-PSC.pdf
How to filter data by time period: http://www.cdc.gov/nhsn/PS-Analysis-resources/PDF/FilterTimePeriod.pdf
How to filter data on additional criteria: http://www.cdc.gov/nhsn/PS-Analysis-resources/PDF/SelectionCriteria.pdf